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UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/934,812	08/22/2001	William J. Purpura	7784-000326	8834

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EXAMINER
LEE, HWA C

ART UNIT	PAPER NUMBER
2672	

DATE MAILED: 09/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>06/15/2004</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6 and 8-20* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6 and 8-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *22 August 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

1.   This office action is in response to the amendment filed June 15, 2004.

2.   The application is entitled: "METHOD AND APPARATUS FOR PROVIDING

VISUAL SECURITY FOR COMPUTER DISPLAY".

3.   Claim 7 is cancelled by the applicant.

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

5.   The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1.   Determining the scope and contents of the prior art.
2.   Ascertaining the differences between the prior art and the claims at issue.
3.   Resolving the level of ordinary skill in the pertinent art.
4.   Considering objective evidence present in the application indicating
        obviousness or nonobviousness.

6.   Claims 1, 8-13 and 20 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Goren et al., U.S. Patent Application Publication No., 2001/0026248

in view of Dunn et al., U.S. Patent No., 6,529,209, and further in view of Long et al.,

U.S. Patent Application Publication No., 2003/0039195.

7.   In regards to claim 1, Goren et al. discloses a *method for providing security*

for computer displays comprising:

- (Paragraph [0006], lines 1-9; Paragraph [0008], lines 1-9; and FIG. 1)

operating a computer to electronically superimpose an obscuring colored

mosaic on user data displayed in a window of an electronic color display

- (Paragraph [0006], lines 9-13; Paragraph [0008], lines 9-15; Paragraph

  [0024], lines 1-13; and FIGS. 4-7);

and providing glasses operable to filter the superimposed, obscuring

colored mosaic displayed in the window of the electronic color display.

- (Paragraph [0025] and FIG. 9).

8.   In regards to claim 1, Goren et al. does not disclose the limitations of *operating*

the computer to perform at least one of saving the user data without the

obscuring colored mosaic, faxing the user data without the obscuring colored

mosaic, and printing the user data without the obscuring colored mosaic, but

Dunn et al. discloses the said limitations.

- Standard video output, which specifically is *user data without the*

  obscuring color mosaic, stored in a first video memory specifically is

  saving the standard video output (Col. 9, lines 61-65 and FIGS 5A-%c,

  Step 102). If the security of the data is of a concern, the user is then given

  the option of encoding the video output. A fill pattern is loaded in a

  second video memory, wherein the data is hidden by the fill pattern, and

  the data can only be seen with the active glasses synchronized in

  accordance with the inventive arrangements (Col. 10, lines 12-22 and FIG

  5B step 110).

9.   In regards to claim 1, both Goren et al (FIG. 3) and Dunn et al. (FIGS. 6A-6B)

disclose the limitation of the **user data comprising of text**. Also, Goren et al. discloses

the limitation of user selectable obscuring color mosaic comprising colorized matrix

patterns as applied to claim 4 below. Colorized matrix pattern specifically is **an array of**

pattern of alternating colors. However, neither Goren et al. nor Dunn et al. explicitly

discloses the limitation of the colored mosaic comprising of **an array of diamonds of**

alternating colors. Long et al. discloses the limitation of applying an obscuring covert

image in hiding the user data, wherein the covert image comprises of diamonds

(Paragraph [0031]). In addition, FIGS. 3a, 4a, and 8, clearly shows patterns of diamond

and square in alternating colors.

10.   It would have been obvious to one of ordinary skill in the art to take the teachings

of Goren et al. and to add from Dunn et al. the method of saving the user data without

the obscuring color mosaic in order to preserve the integrity of the original data. Thus,

only when viewing the data, the obscuring color mosaic is present in order to provide

secure display of the data. The original data itself remain undistorted and unchanged.

In addition, all references are directed to obscuring the user data from unauthorized

viewers on a display. It would have been obvious still to one of ordinary skill in the art to

take the teachings of Goren et al. and Dunn et al., and to add from Long et al. the

method of applying the obscuring color mosaic comprising an array of diamonds of

alternating colors. Goren et al. and Dunn et al. disclose applying an obscuring mosaic

comprising a plurality of patterns and matrix of colorized patterns, and an array of

diamonds of alternating color as disclosed by Long et al. specifically is a matrix of

colorized patterns. In addition, the array of diamonds of alternating colors is designed

to confuse the viewer's eyes, and thus effectively prevent unauthorized viewing of user

data. In addition, all references are directed to obscuring the user data from

unauthorized viewers on a display.

11.   In regards to clam 8, the same basis and rationale for claim rejection as applied

to claim 1 are applied. *The area of each of the diamond* as disclosed by Long et al. *is*

sufficient to confuse the eye when the color mosaic is superimposed upon the

text.

12.   In regards to claim 9, the same basis and rationale for claim rejection as applied

to claim 8 are applied. Red and white diamonds are specifically colorized matrix of

patterns as disclosed by Goren et al. In addition, Goren et al. discloses changing the

default color of the font to improve font readability. Further, the applicant does not

disclose the criticality of using said colors, and thus Goren et al. reads on the limitations

of the said colors.

13.   In regards to claims 10-13, the same basis and rationale for claim rejection as

applied to claims 1 and 8-9 are applied. The applicant fails to disclose the criticality of

the said diamond sizes of 20-40%, 23-27%, 25%, and 75%. Said diamond sizes can be

different depending on the application, and the criticality of specific sizes must be

disclosed in order to demonstrate a distinctly patentable matter. Thus, any diamond

shape size that performs the function of sufficiently obscuring the user data specifically

reads on said limitations of diamond sizes. As applied to claim 8 above, Long et al.

discloses an obscuring pattern comprising diamond shapes, which are of sufficient size to confuse the naked eye.

14.   In regards to claim 20, the same basis and rationale for claim rejection as applied to claim 1 are applied. Dunn et al. discloses the limitation of the masking data, which specifically is an obscuring colored mosaic. The masking data can be a fill pattern, which specifically can be a random data, a screen saver image, modified derivation of the user data having modified color or data whose content, positions or size is physically offset. A random data specifically can be any data, and thus can be of different color than the user data. A screen saver image specifically has no color restriction, and thus it can also be of different color than the user data. Further, a modified derivation of the user data having modified color specifically is having different color than the user data. In addition, Long et al. teaches obscuring pattern comprising diamond shapes, and diamond shapes specifically are geometric shape having at least four sides.

15.   Claims 2-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goren et al in view of Dunn et al., and further in view of Long et al. as applied to claims 1, 8-13 and 20 above, and further in view of Tian, U.S. Patent Application Publication No., 2002/0146123.

16.   In regards to claim 2, Goren et al. Dunn et al., and Long et al. do not explicitly disclose the limitation of *applying a watermark to the user data displayed in the window*, but Tian discloses the said limitation. Tian discloses applying a reversible watermark in a media signal. The embedded watermark is reversible by decoding the

information about the watermark embedder function and thus original data is restored
(Paragraph [0010]).

17.   It would have been obvious to one of ordinary skill in the art to take the teachings
of Goren et al., Dunn et al. and Long et al., and to add from Tian the method of applying
watermark to the user data in order to embed security authentication or any other data
into the original data for the purpose of providing added data security. Both visible and
invisible watermarks are known in the art, and embedding such watermark provides a
method of tracking the authenticity of the original data in order to prevent piracy and/or
unauthorized viewing of the document. In addition, all references are directed to
obscuring the user data from unauthorized viewers on a display.

18.   In regards to claim 3, Goren et al., Dunn et al. and Long et al. discloses *a
method in accordance with claim 2*, and Goren et al. discloses *wherein said
operating the computer to superimpose an obscuring mosaic on the user data
comprises operating the computer to display the superimposing mosaic before
visibly displaying the user data.*

- Goren et al. explicitly discloses the user selecting the obscuring pattern
   and color before calling the computer application for displaying the original
   user data (Paragraph [0024], lines 1-9 and FIG. 4). In order for the
   security feature to obscure the user data and prevent public viewing of
   said user data, the obscuring pattern must be displayed before displaying
   the user data.

19.   Claims 4, 6, and 16-19 are rejected under 35 U.S.C. 103(a) as being
unpatentable over Goren et al. in view of Dunn et al., and further in view of Long et al.
as applied to claims1, 8-13 and 20 above, and further in view of Tian, as applied to
claims 2-3 above, and further in view of Livingston, U.S. Patent No., 6,621,590.

20.   In regards to claim 4, Goren et al. Dunn et al., and Long et al. in combination
disclose the limitations of *operating the computer to perform at least one of saving
the user data without the obscuring colored mosaic, faxing the user data without
the obscuring colored mosaic, and printing the user data without the obscuring
colored mosaic*, as applied to claim 1 above, but do not explicitly disclose the limitation
of *applying watermark*. Tian discloses the limitation of applying reversible watermark,
as applied to claim 2 above, and the reversible watermark specifically is *operating the
computer to remove the applied watermark from the user data*. Goren et al., Dunn
et al. and Tian et al. do not explicitly disclose the limitation of *operating the computer
to remove the applied watermark from the user data prior to at least one of
printing, faxing, and saving the user data.*

21.   Livingston discloses the said limitation.

- The controls for "Watermarks" feature include a control (FIG. 3A, No. 82)
  for selecting the option "Print Watermarks". By un-checking or not
  selecting on the box next to "Print Watermarks", the watermark is removed
  from user data before printing the user data.

22.   It would have been obvious to one of ordinary skill in the art to take the teachings
of Goren et al., Dunn et al., and Long et al., and to add from Tian the method of

reversible watermark in order to allow the user data to be saved without the obscuring color mosaic and watermark, and thus the original, unaltered user data can be preserved. In addition, it would also have been obvious to one of ordinary skill in the art to add from Livingston the watermarks control in order to allow the user to remove the watermark before printing the user data. Further, all references are directed to obscuring the user data from unauthorized viewers on a display.

23.   In regards to claim 6, the same basis and rationale for claim rejection as applied to claim 4 are applied. By selecting or checking on the box next to "Print Watermarks" control, the watermark is added to the user data before printing the user data. When the "Print Watermark" is selected, the pull down menu (FIG. 3A, No. 84) and user editable textbox (FIG. 3A, No. 88) are used to select or create the desired watermark. Once, the watermark is created or selected, de-selecting or un-checking the "Print Watermark" control removes the watermark. Reselecting or rechecking the "Print Watermark" control reapplies the said original saved watermark.

24.   In regards to claim 16, the same basis and rationale for claim rejection as applied to claims 1-4 and 20 are applied. In addition, Goren et al. discloses the limitations of storing a set of instructions for providing display security (Paragraph [0012]), and Dunn et al. explicitly discloses a plurality of computer computer-readable medium (Col. 9, lines 63-65 and Col. 10, lines12-15). Further, Long et al. teaches diamond shapes, which specifically are geometric patterns of at least four sides as applied to claim 20 above. It would have been obvious to one of ordinary skill in the art to apply the instructions stored in a computer-readable medium as disclosed by Goren et al. and

Dunn et al. to execute all functions of claims 1-4 above and the current claim. All executable programs are stored in some sort of computer-readable medium. Otherwise, the computer system would not be able to access the program and execute the functions as needed.

25.   In regards to claim 17, the same basis and rationale for claim rejection as applied to claim 16 are applied.

26.   In regards to claim 18, the same basis and rationale for claim rejection as applied to claims 6 and 16 are applied. The said executable instructions of claim 16 can be applied to perform the reapplying of the watermark as applied to claim 6 above.

27.   In regards to claim 19, the same basis and rationale for claim rejection as applied to claims 4 and 16 are applied. Goren et al. clearly discloses the limitation of allowing the user to select the colorized matrix as applied to claim 4 above. Thus the executable instruction in the form of a computer program **accepts a choice of color for the superimposed obscuring colored watermark**.

28.   Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Goren et al. in view of Dunn et al., and further in view of Long et al. as applied to claims 1, 8-13 and 20 above, and further in view of Tian, as applied to claims 2-3 above, and further in view of Livingston as applied to claims 4, 6, and 16-19 above, and further in view of Parikh et al., U.S. Patent No., 5,801,697.

29.   In regards to claim 5, Goren et al., Dunn et al., Long et al., Tian, and Livingston disclose all limitations of **a method in accordance with claim 4**, but do not disclose the

limitation of *further comprising operating the computer to blank the window prior to removing the applied watermark*. Parikh et al. discloses the said limitation.

- A method and apparatus of providing secure viewing of user data by obscuring the data with completely whited out area, which specifically is a completely blank viewing area (Col. 1, lines 59-63; Col. 2, lines 42-53). The completely blank obscuring effect when combined with the reversible watermark of claims 2 and 4, allows for a method of blanking out the display window prior to removing the applied watermark. The reversible watermark must be removed after the window is blanked in order to maintain the visual security of the user data.

30.   It would have been obvious to one of ordinary skill in the art to take the teachings of Goren et al., Dunn et al., Long et al., Tian, and Livingston, and to add from Parikh the method of blanking out the display window in order to completely obscure the user data before removing any of the security features, such as the reversible watermark. Thus, maintaining the visual security of the user data. In addition, all references are directed to obscuring the user data from unauthorized viewers on a display.

31.   Claims 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goren et al., in view of Dunn et al., and further in view of Long et al. as applied to claims 1, 8-13 and 20 above, and further in view of Bernheiser, U.S. Patent No., 5,587,747.

32.   In regards to claim 14, Goren et al., Dunn et al., and Long et al. discloses the limitations of *a method in accordance with claim 1*, and Goren et al. discloses *further comprising providing a choice of colors for the obscuring colored mosaic, and*

providing a plurality of sets of colored glasses corresponding to the color choices (Paragraph [0025] and FIG. 9). Optical filter (a pair of optical glasses) is selected to match the color of the pattern of the obscuring colorized matrix. In order to match the color of the colorized matrix, the color of the lens of the optical glasses must be changed to match the color of the colorized matrix. Goren et al. and Dunn et al. do not explicitly disclose the limitation of a plurality of colored glasses, but Bernheiser discloses the said limitation.

- Bernheiser teaches a lens replacement system comprising a single frame set with interchangeable multiple lens of different shapes and color (Col. 2, lines 59) specifically is a plurality of sets of colored glasses.

33.   It would have been obvious to one of ordinary skill in the art to take the teachings of Goren et al., Dunn et al. and Long et al., and to add from Bernheiser the method of providing interchangeable lens system, wherein multiple sets of colored lens can be interchanged and thus provides a plurality of sets of colored glasses. Then, the plurality of color glasses is applied to select the color of the plurality of lens to correspond to the color choices for the obscuring colored mosaic. By using an interchangeable lens system, only a single frame is required to perform the same function of a plurality of sets of glass frames, and thus saving storage space.

34.   In regards to clam 15, the same basis and rationale for claim rejection as applied to claim 14 are applied.

Response to Arguments

35.   Applicant's arguments filed 06/15/2004 have been fully considered but they are not persuasive. A detailed explanation follows.

36.   In regards to claim 1, the applicant amended the original claim in the instant amendment to add the limitation of "wherein the user data is text, operating the computer to superimpose a colored mosaic comprises operating the computer to superimpose an array of diamonds of alternating colors on the text", which was originally recited in the currently cancelled claim 7. The applicant argues that the amended claim is allowable because the prior art cited in the previous office action to reject claim 1, Goren et al. and Dunn et al., do not teach the said added limitation. In addition, the applicant argues that the examiner noted that Goren et al. and Dunn et al. do not explicitly teach the said added limitation. The examiner asserts that the applicant has taken the statement out of context. While the examiner agrees that Goren et al. and Dunn et al. do not explicitly teach the said added limitations as stated in the previous office action, the examiner has clearly stated that Long et al. in combination with Goren et al. and Dunn et al. teach said added limitation. The applicant is advised to review the previous office action (Paragraphs 28-29). Further, the newly amended claim 1 specifically is directed to the same limitations as the cancelled claim 7. Thus, the examiner maintains the original rejection.

37.   In regards to claim 16 and 20, the applicant added a new limitation ("wherein the obscuring colored mosaic is comprised of a geometric shape having at least four sides"). As shown above, Long et al. teaches diamond shapes, which specifically are

geometric shape having at least four sides. Thus, the examiner maintains the original rejection.

38.   Exhibit A filed 06/15/2004 has been fully considered but is not persuasive. The applicant does not address the exhibit in his argument.

Conclusion

39.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hwa C Lee whose telephone number is 703-305-8987. The examiner can normally be reached on M-F 8:00-5:30.
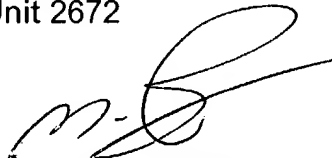
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Razavi can be reached on 703-305-4713. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

                                         Hwa C Lee
                                         Examiner
                                         Art Unit 2672

HCL
08/23/04

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                          SUPERVISORY PATENT EXAMINER
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